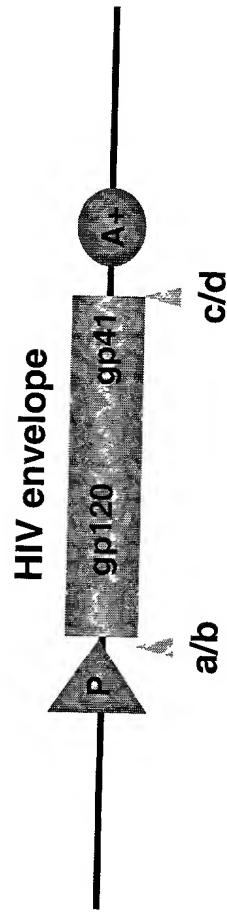


PhenoSense HIV Entry Assay

Envelope Expression Vector: pHIVenv



HIV-1 Expression Vector: pHIVlucΔU3

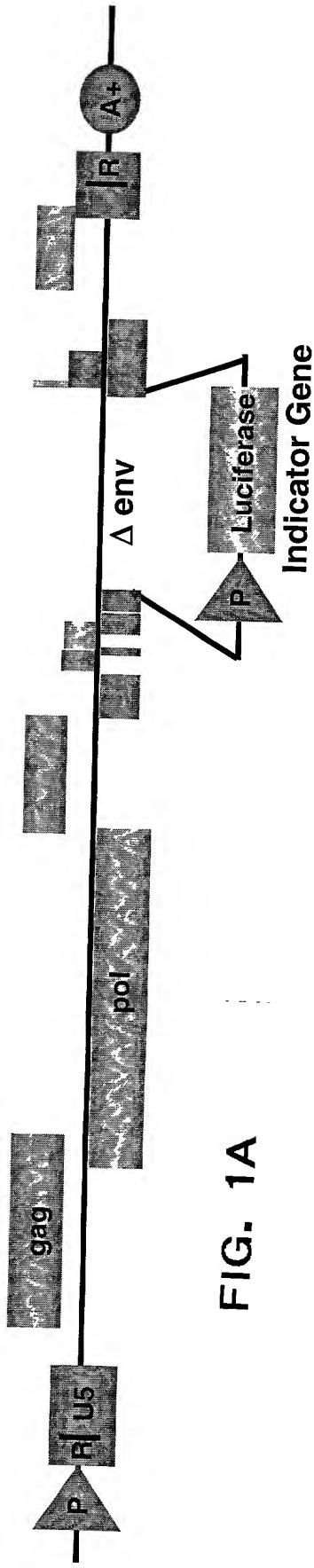


FIG. 1A

PhenoSense™ HIV: Cell Assay

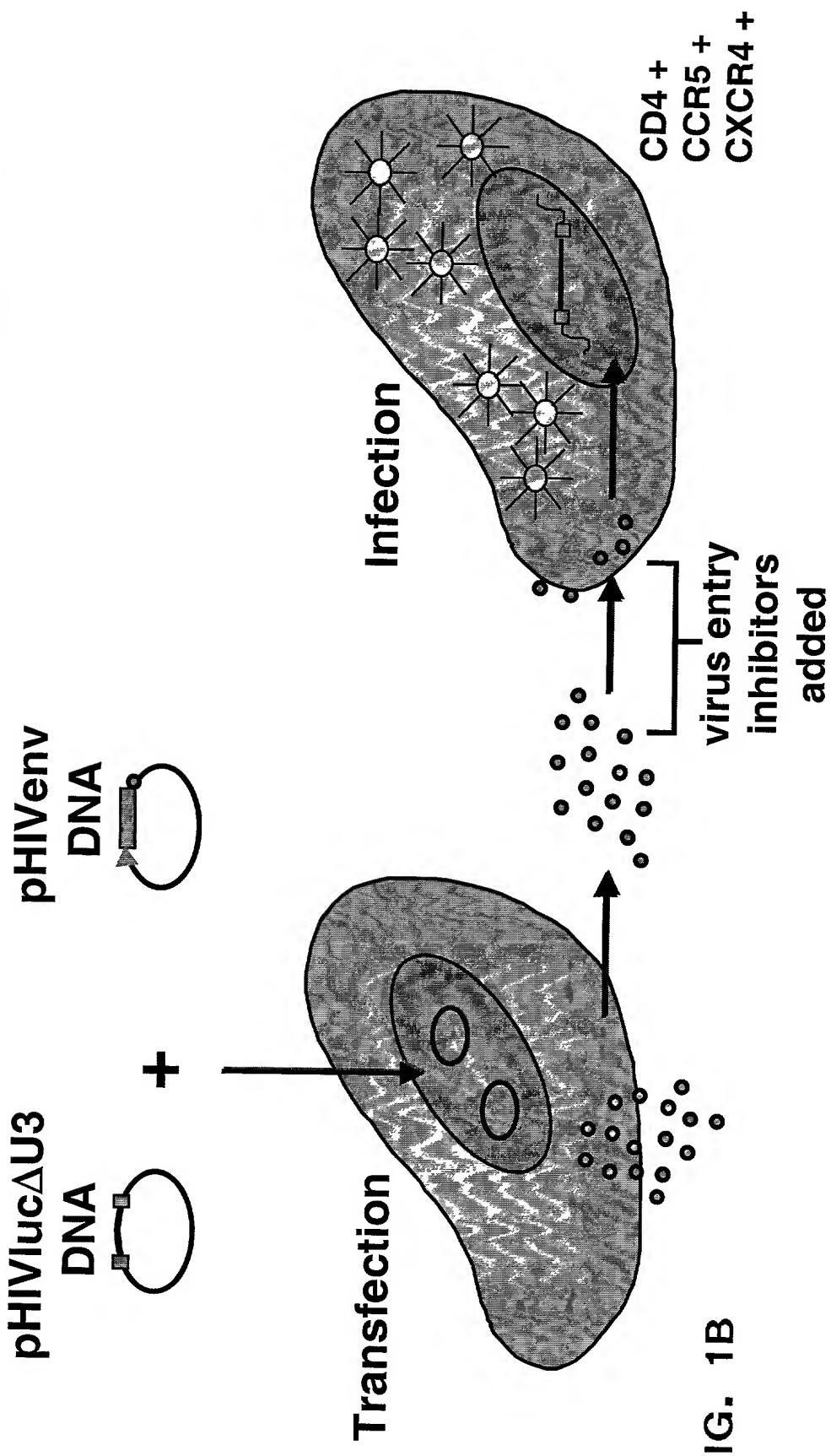


FIG. 1B

HIV Envelope Expression Strategies

FL CMV + a/b

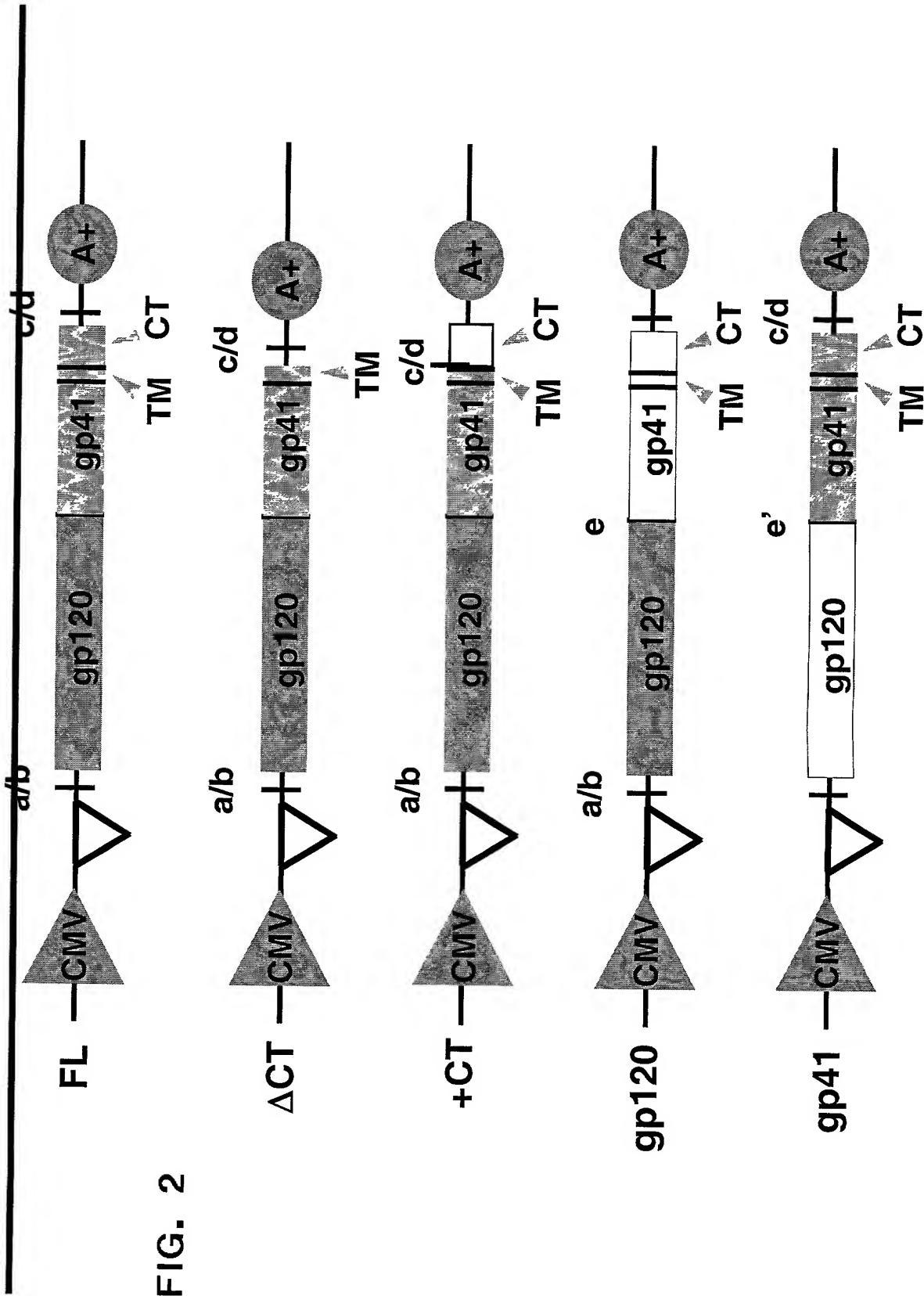


FIG. 2

Co-Receptor Tropism Assay Interpretation

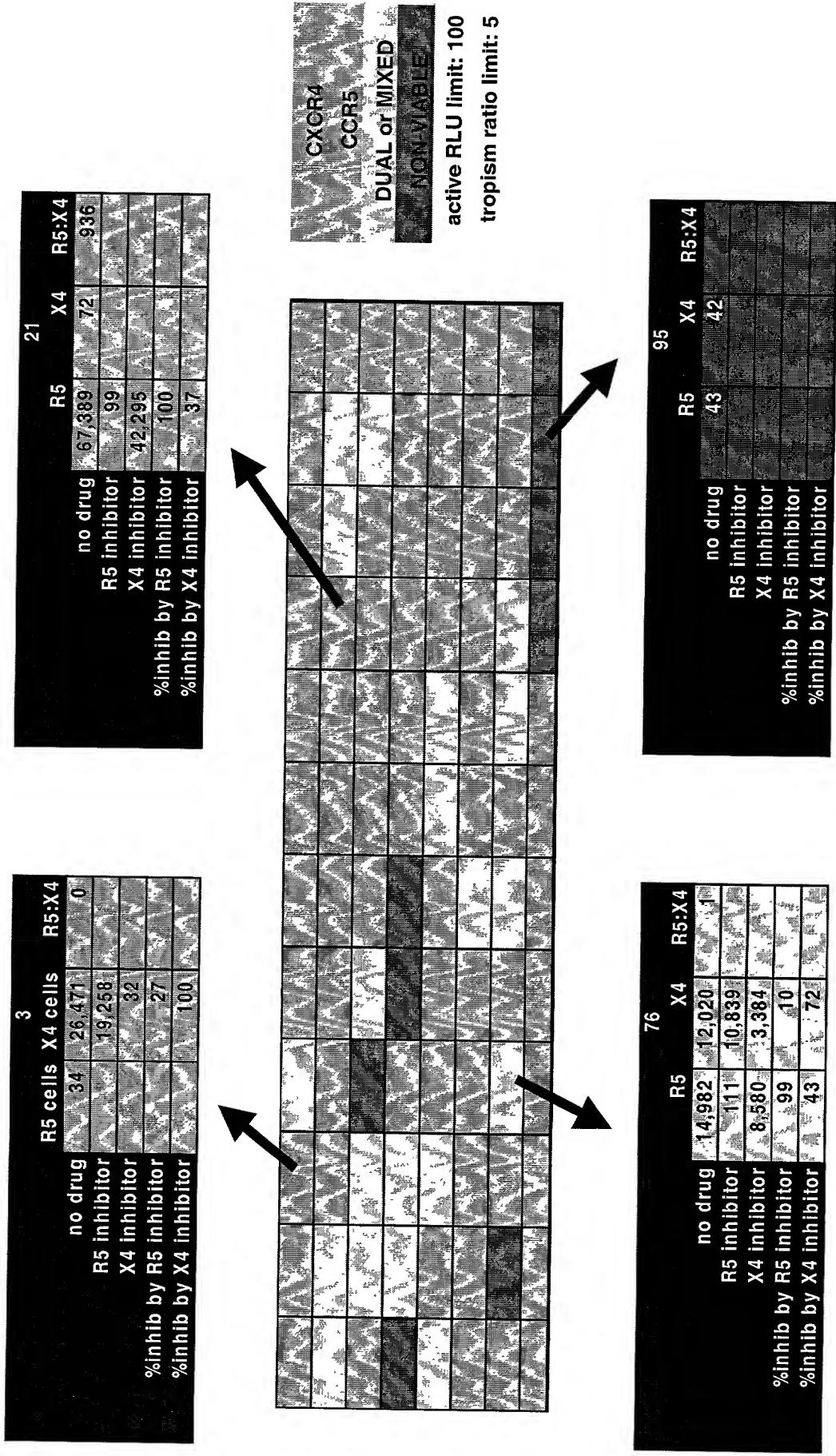


FIG. 3A

Co-Receptor Tropism Assay Interpretation

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	R5 cells	X4 cells	R5:X4
no drug	34	26,471	0
R5 inhibitor		19,258	
X4 inhibitor		32	
%inhib by R5 inhibitor		27	
%inhib by X4 inhibitor		100	

	R5	X4	R5:X4
no drug	67,389	72	936
R5 inhibitor		99	
X4 inhibitor		42,295	
%inhib by R5 inhibitor		100	
%inhib by X4 inhibitor		37	

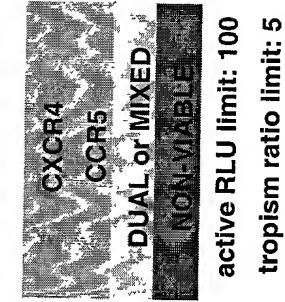
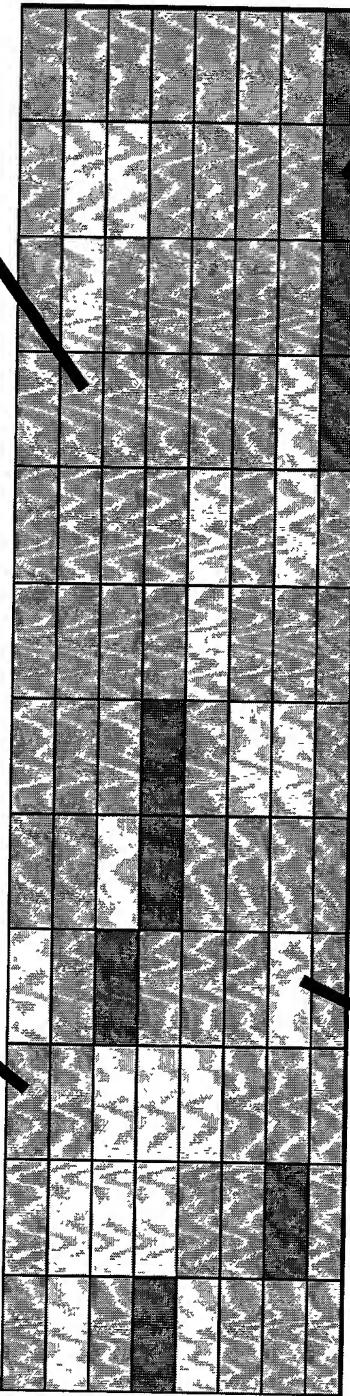


FIG. 3B

	R5	X4	R5:X4
no drug	14,982	12,020	1
R5 inhibitor	111	10,339	
X4 inhibitor	8,580	3,384	
%inhib by R5 inhibitor		10	
%inhib by X4 inhibitor		43	

	R5	X4	R5:X4
no drug	43	42	
R5 inhibitor			
X4 inhibitor			
%inhib by R5 inhibitor			
%inhib by X4 inhibitor			



active RLU limit: 100
tropism ratio limit: 5

Entry Inhibitor Susceptibility: Fusion Inhibitor

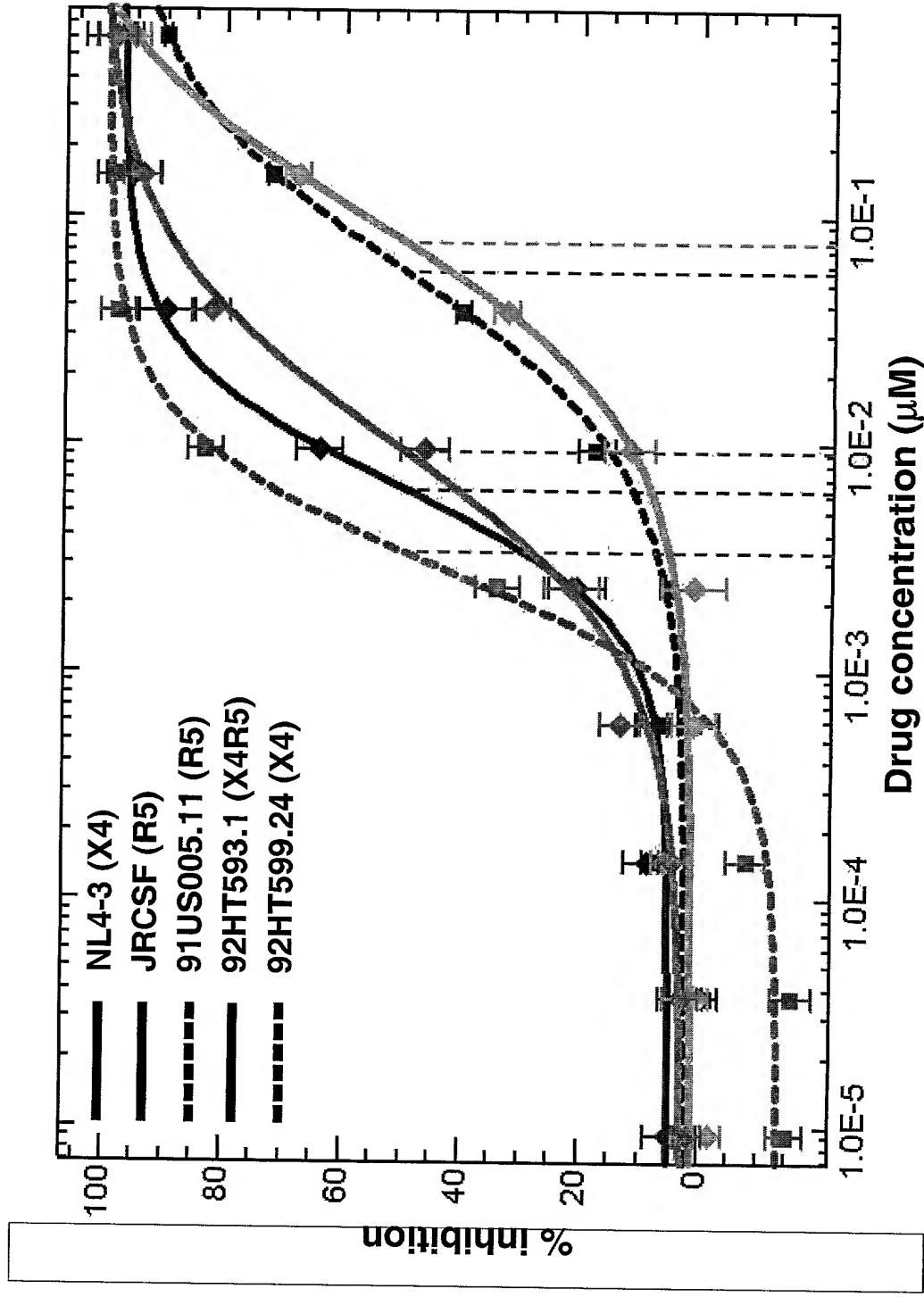


FIG. 4A

Reduced Susceptibility: Fusion Inhibitor

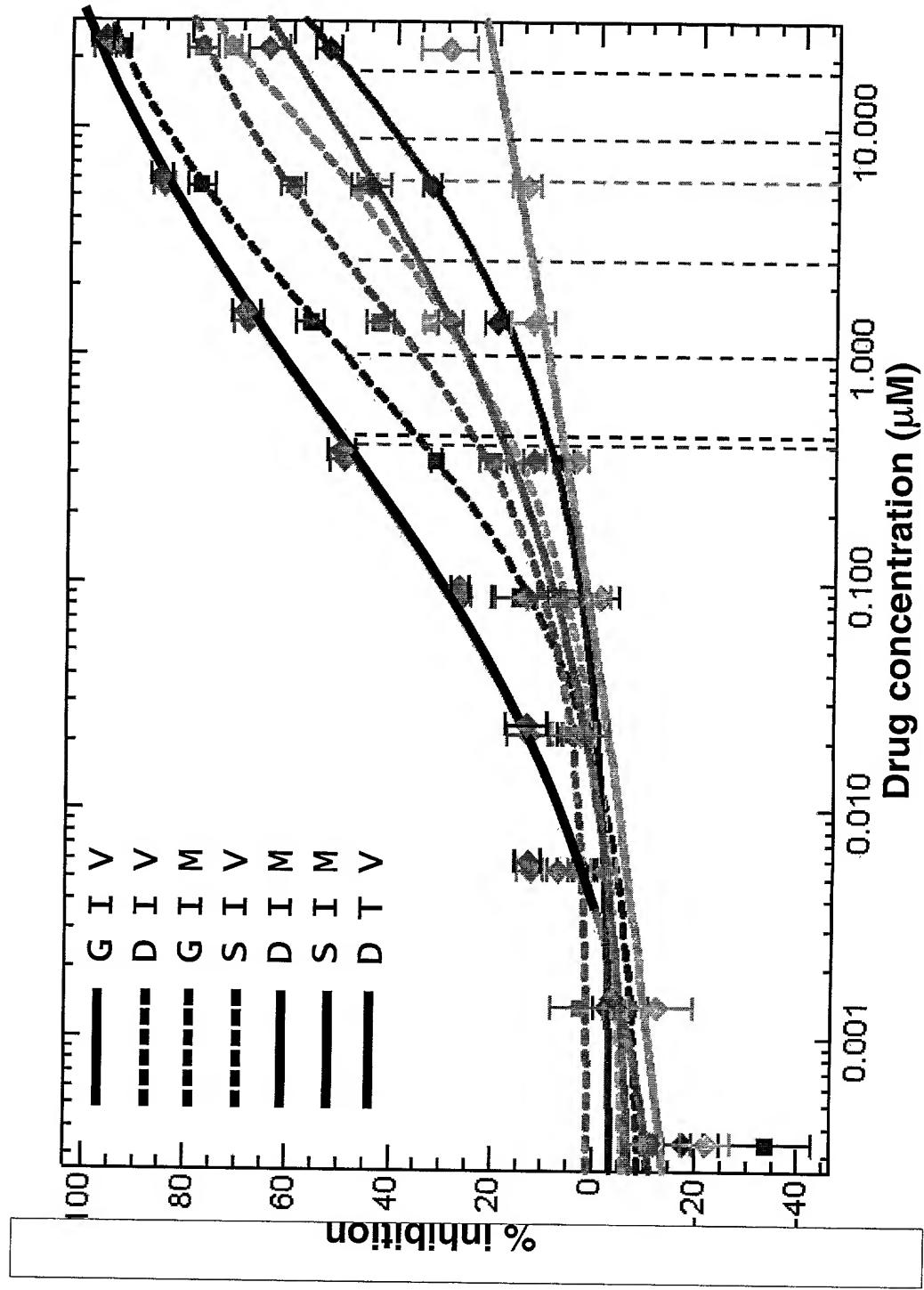


FIG. 4B

Entry Inhibitor Susceptibility: CCR5 Inhibitor

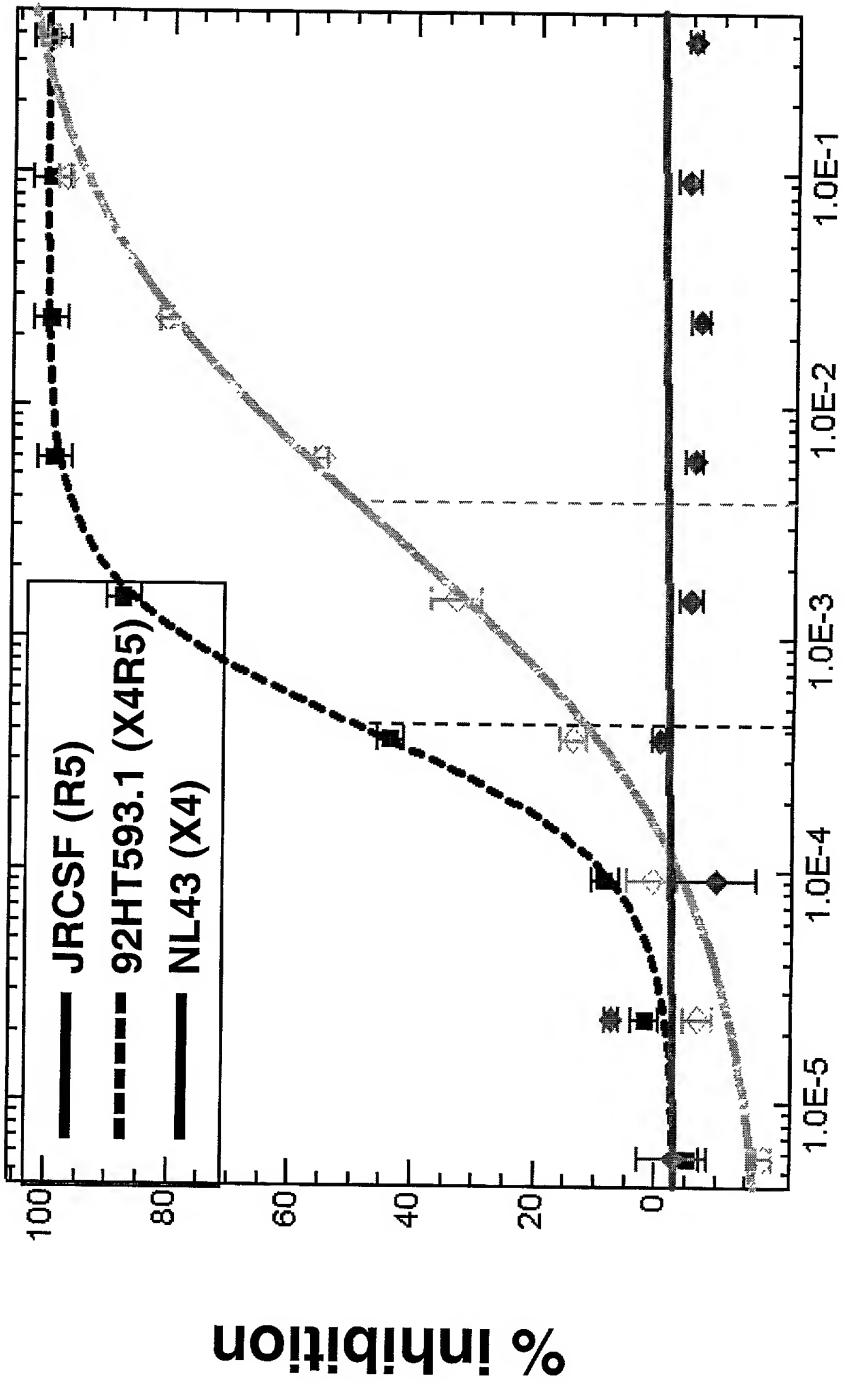
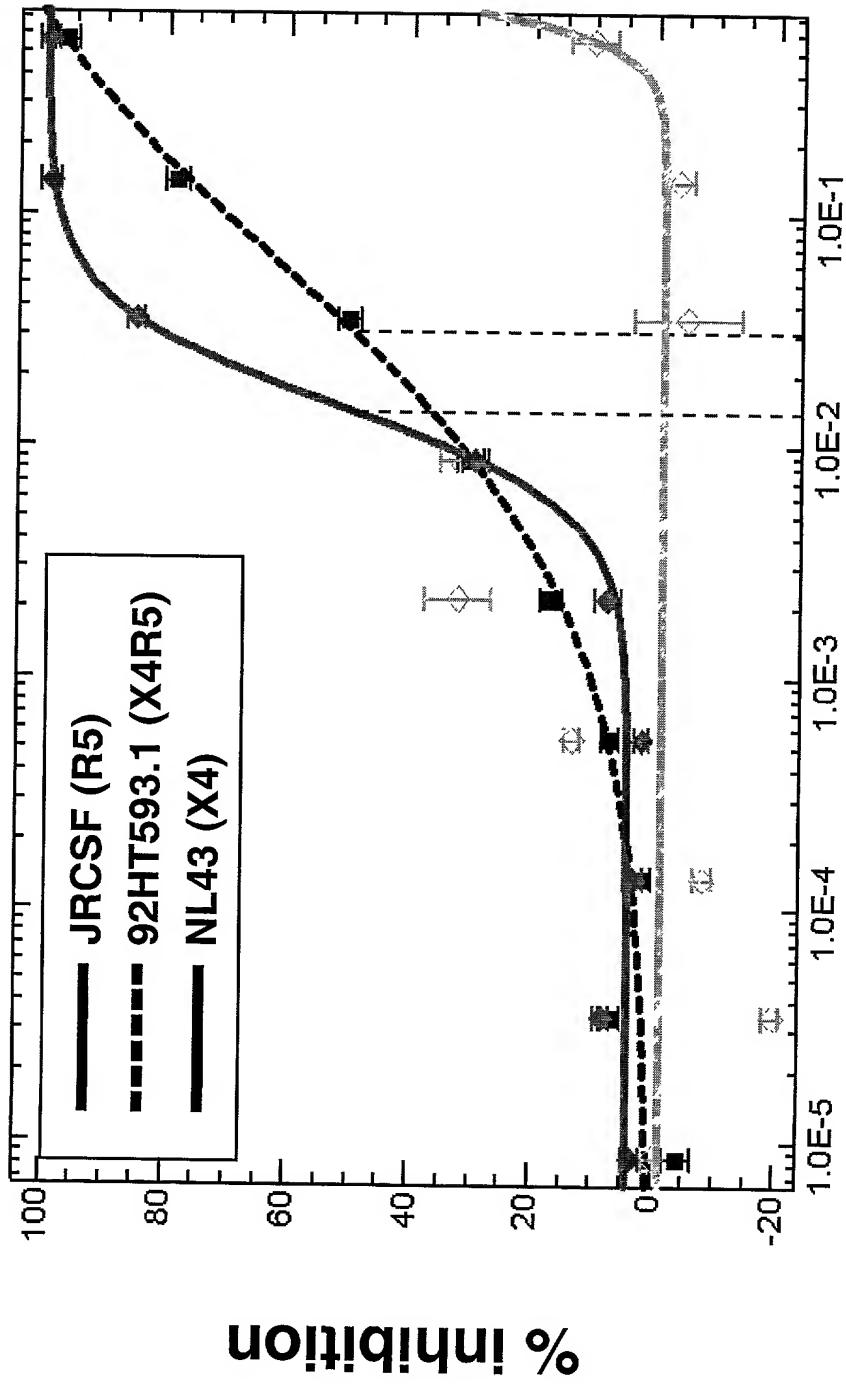


FIG. 5A
Drug: R5 Inhibitor
Cell: CD4/CCR5

Entry Inhibitor Susceptibility: CXCR4 Inhibitor

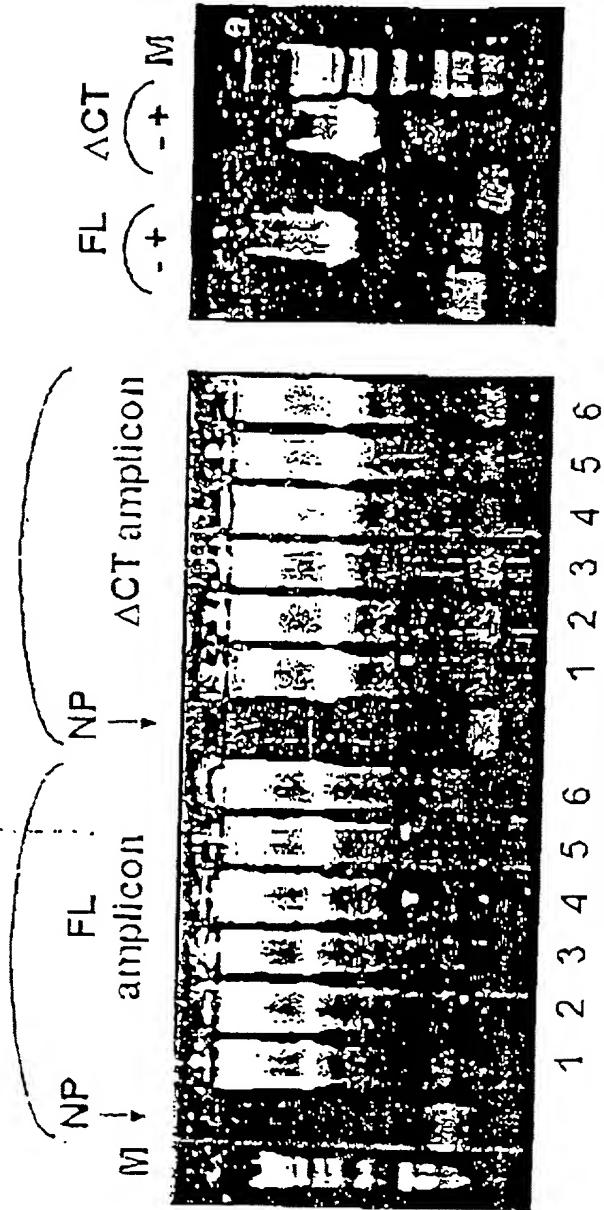


Drug: X4 Inhibitor
Cell: CD4/CXCR4

FIG. 5B

Figure 6
Envelope Sequence Amplification

Envelope Sequence Amplification



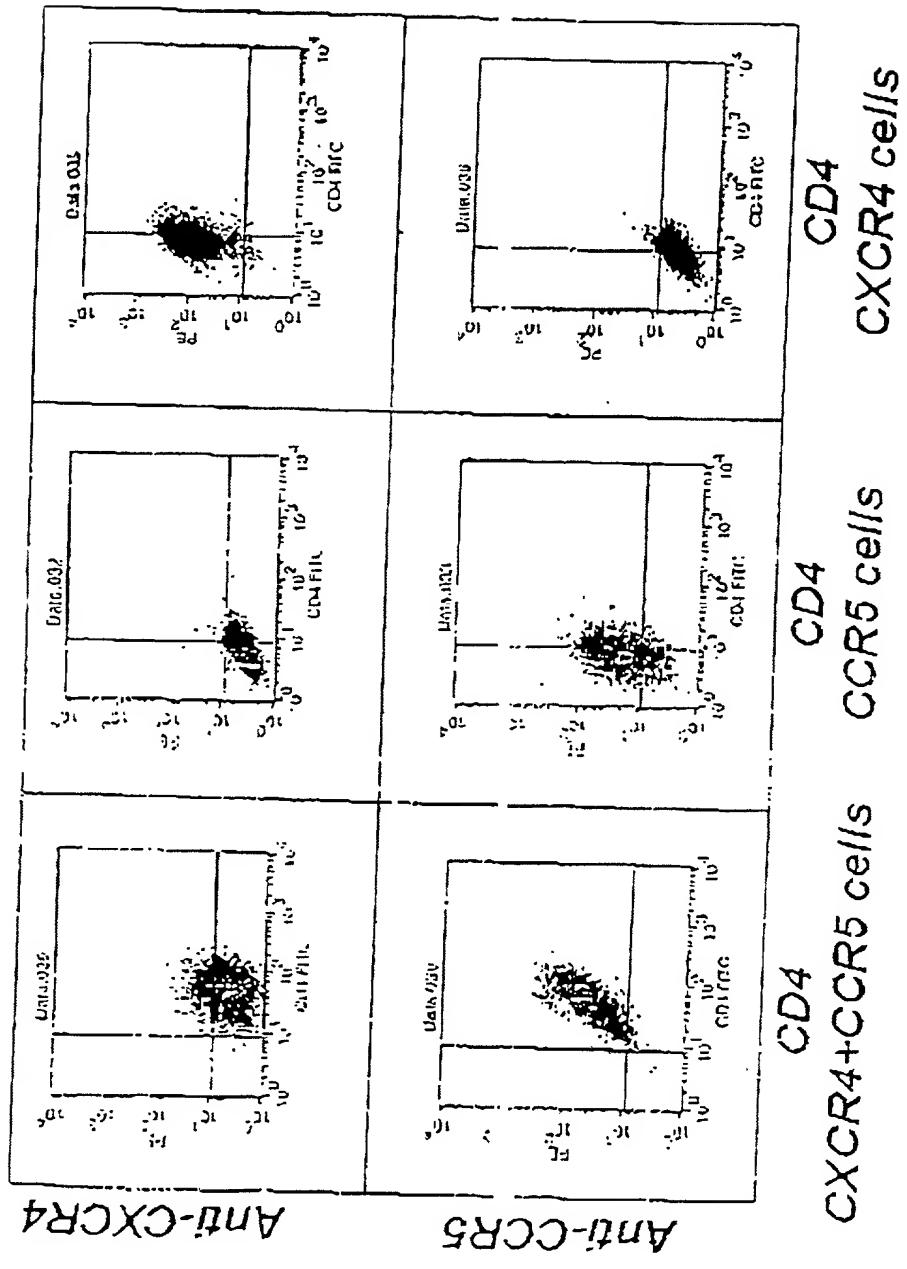
negative plasma

Co-Receptor Tropism	# of isolates
X4	15
R5	24
X4/R5	15
Undefined	35

Envelope Subtype	# of isolate
Clade A	2
Clade B	76
Clade C	7
Clade D	1
Clade E	3

Figure 7. Target Cell Receptor and Co-Receptor Expression

Target Cell Receptor and Co-Receptor Expression



Inhibition By Co-Receptor Antagonists

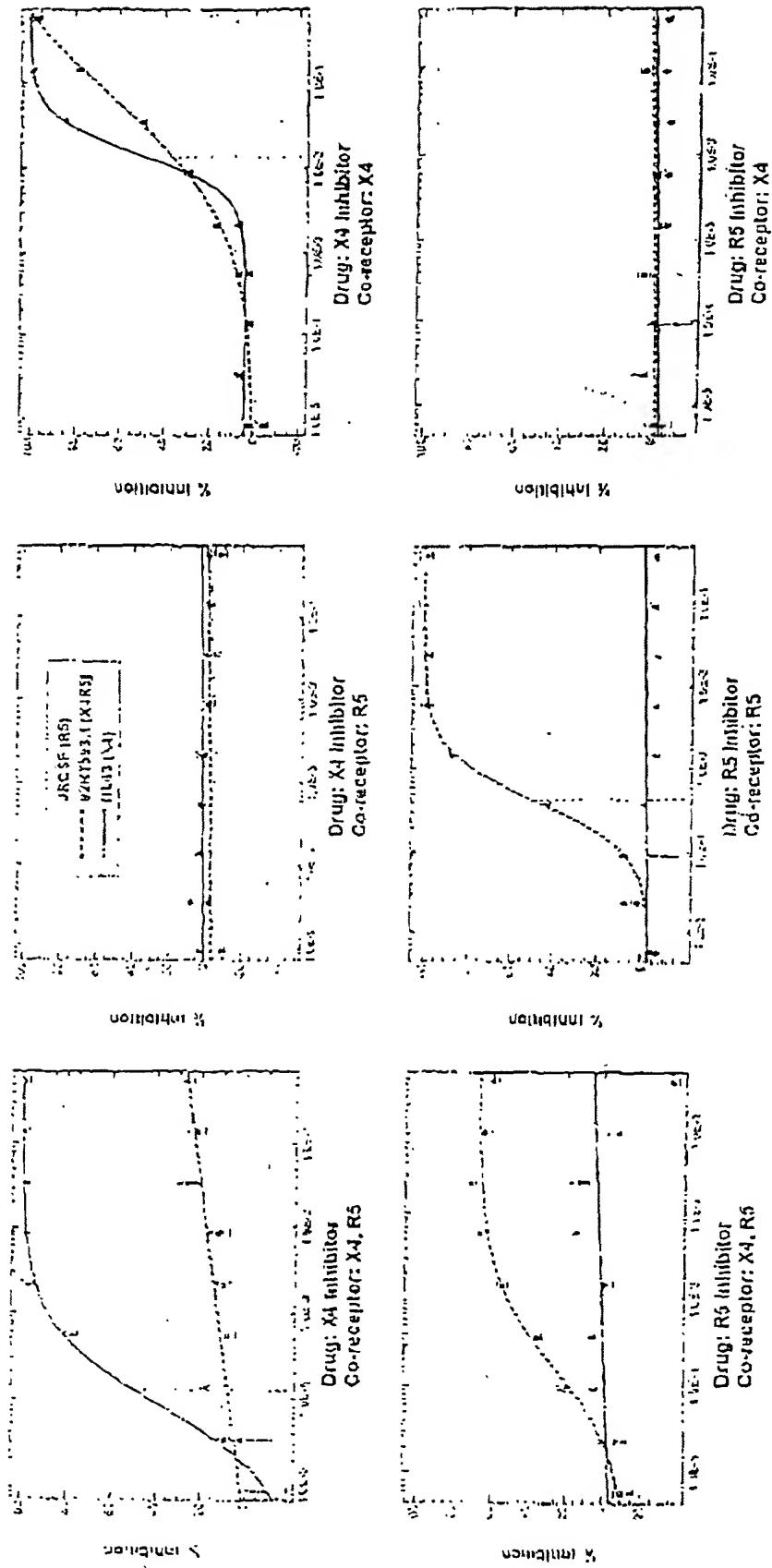


Figure 9

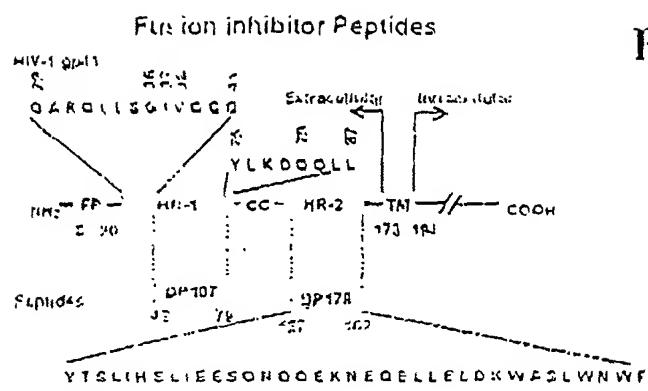


Figure X: Patient Virus v. Patient Antibody

	Plasma (Antibody) Date								
Virus Date	9/2/99	11/29/99	2/29/00	5/31/00	8/30/00	11/22/00	2/14/01	5/30/01	9/11/01
9/2/99	26	219	675	1403	2670	2089	2190	2363	2411
11/29/99	29	179	1024	2151	3733	3152	2808	2953	3086
2/29/00	27	35	78	358	1769	1939	2247	3112	4345
5/31/00	36	67	82	200	795	1078	1371	2208	3375
8/30/00	19	48	36	64	76	166	556	937	1407
11/22/00	29	43	64	76	90	119	374	721	1234
2/14/01	42	65	61	152	117	134	122	289	526
5/30/01	41	66	82	84	85	113	78	107	296
9/11/01	42	62	56	62	85	77	55	61	95
Reference Virus									
NL43	17	138	294	956	1172	953	1584	1868	2143
JRCSL	24	37	35	60	87	97	105	152	209